Wadeable Streams Assessment: A Collaborative Survey of the Nation's Streams EPA 841-B-06-002

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United States
Environmental
Protection Agency

Office of Water
Washington, DC 20460

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Acknowledgments

This report resulted from a ground-breaking collaboration on stream monitoring. States came together with the U.S. Environmental Protection Agency (EPA) to demonstrate a cost-effective approach for answering one of the Nation's most basic water quality questions: what is the condition of our Nation's streams?

The EPA Office of Water would like to thank the many participants who contributed to this important effort and the scientists within the EPA Office of Research and Development for their research and refinement of the survey design, field protocols, and indicator development. Through the collaborative efforts of state environmental and natural resource agencies, federal agencies, universities, and other organizations, more than 150 field biologists were trained to collect environmental samples using a standardized method, and, more than 25 taxonomists identified as many as 500 organisms in each sample. Each participating organization attended a national meeting to discuss and formulate the data analysis approach, as well as regional meetings to evaluate and refine the results presented in this report.

Collaborators

Alaska Department of Environmental Conservation
Arkansas Department of Environmental Quality
Arizona Game and Fish Department
California Department of Fish & Game
California Water Board
Colorado Department of Public Health & Environment
Colorado Division of Wildlife
Connecticut Department of Environmental Protection
Delaware Department of Natural Resources & Environmental Control
Georgia Department of Natural Resources
Iowa Department of Natural Resources
Idaho Department of Environmental Quality
Illinois Environmental Protection Agency
Idaho Environmental Management
Kansas Department of Health and Environment
Kentucky Division of Water
Louisiana Department of Environmental Quality
Maryland Department of Natural Resources
Maine Department of Environmental Protection
Michigan Department of Environmental Quality
Minnesota Pollution Control Agency
Missouri Department of Conservation
Mississippi Department of Environmental Quality
Montana Department of Environmental Quality
North Carolina Department of Water Quality
Nevada Division of Environmental Protection
New Hampshire Department of Environmental Services
New Jersey Department of Environmental Protection
New Mexico Environment Department
North Dakota Department of Health
New York Department of Environmental Conservation
Oklahoma Conservation Commission
Oklahoma Water Resources Board
Ohio Environmental Protection Agency
Oregon Department of Environmental Quality
Pennsylvania Department of Environmental Protection
South Carolina Department of Health & Environmental Control
South Dakota Department of Environment & Natural Resources
South Dakota Game, Fish & Parks
Tennessee Department of Environment & Conservation
Texas Commission of Environmental Quality
Utah Division of Water Quality
Virginia Department of Environmental Quality

Vermont Department of Environmental Conservation
Washington State Department of Ecology
Wisconsin Department of Natural Resources
West Virginia Department of Environmental Protection
Wyoming Department Environmental Quality
Fort Peck Assiniboine and Sioux Tribes
Guam EPA
U.S. Geological Survey
U.S. EPA, Office of Environmental Information
U.S. EPA, Office of Water
U.S. EPA, Office of Research and Development
U.S. EPA, Regions 1 - 10
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Central Plains Center for Bioassessment
New England Interstate Water Pollution Control Commission
The Council of State Governments
Great Lakes Environmental Center
Tetra Tech, Inc.
EcoAnalysts
University of Arkansas
Mississippi State University
Oregon State University
Utah State University

The data analysis team painstakingly reviewed the data set to ensure its quality and performed the data analysis. This team included Phil Kaufmann, Phil Larsen, Tony Olsen, Steve Paulsen, Dave Peck, John Stoddard, John Van Sickle, and Lester Yuan from the EPA Office of Research and Development; Alan Herlihy from Oregon State University; Chuck Hawkins from Utah State University; Daren Carlisle from the U.S. Geological Survey; and Michael Barbour, Jeroen Gerritson, Kristen Pavlik, and Sam Stribling from Tetra Tech, Inc.

The report was written by Steve Paulsen and John Stoddard from the EPA Office of Research and Development and Susan Holdsworth, Alice Mayio, and Ellen Tarquinio from the EPA Office of Water. Major contributions to the report were made by John van Sickel, Dave Peck, Phil Kaufmann, and Tony Olsen from the EPA Office of Research and Development and Peter Grevatt and Evan Hornig from EPA Office of Water, Alan Herlihy from Oregon State University, Chuck Hawkins from Utah State University, and Bill Arnold from the Great Lakes Environment Center. Technical editing and document production support was provided by RTI International. This report was significantly improved by the external peer review conducted by Dr. Stanley V. Gregory, Ecologist, Oregon State University; Dr. Kenneth Reckhow, Environmental Engineer, Duke University; Dr. Kent Thornton, Principal Ecologist, FTN Associates; Dr. Scott Urquhart, Statistician, Colorado State University; and Terry M. Short of the U.S. Geological Survey. The Quality Assurance Officer for this project was Otto Gutenson from the EPA Office of Water.

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